Electric PTO Clutch Removal

The electric PTO clutch removal and installation are similar on both the air cooled engine models and the liquid cooled model. The only difference is the clutch guard removal. The figure below points to the bolts that need to be removed in both units (Fig. 355). The procedure shows an air-cooled unit.

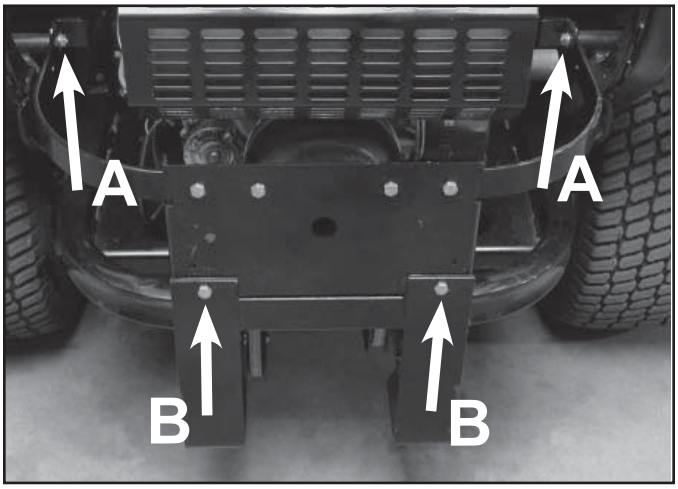

Fig 355 DSC-3131

A. Top strap bolts B. Clutch guard bolts

On the Kawasaki liquid cooled models, remove 6 bolts to access the clutch (Fig. 356).

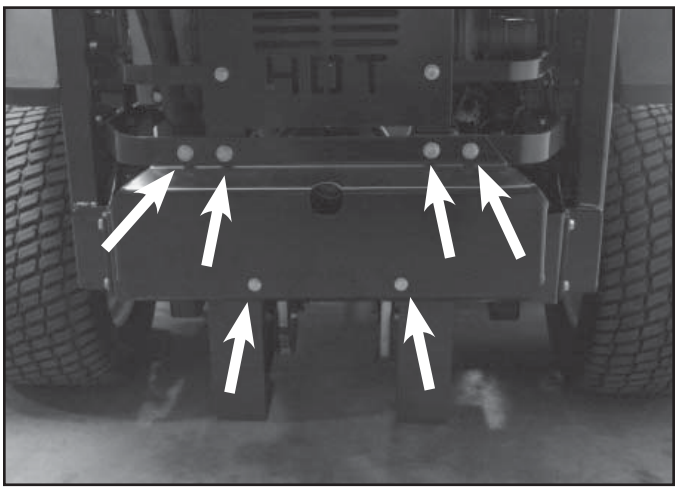

Fig 356 DSC-3794

This procedure is on the Air Cooled Engine Models and follows the same procedure for the Liquid Cooled Engine Model.

1. Loosen and remove 2 bolts and nuts located on the clutch guard (Fig. 357).

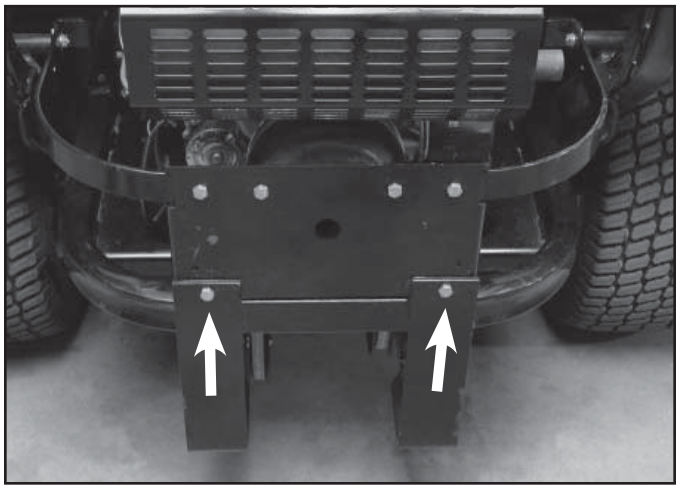

Fig 357 DSC-3131

2. Remove the right and left top bolt and nut on the top strap guards to remove the clutch guard from the unit (Fig. 358).

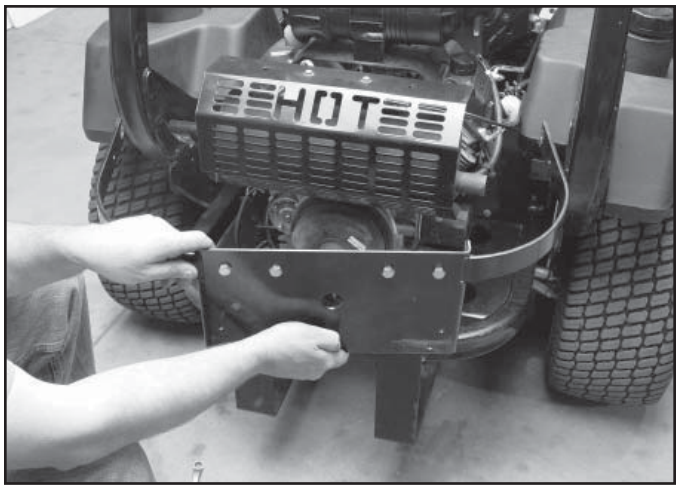

Fig 358 DSC-3134

3. Disconnect the electric PTO clutch connector from the clutch (Fig. 359).

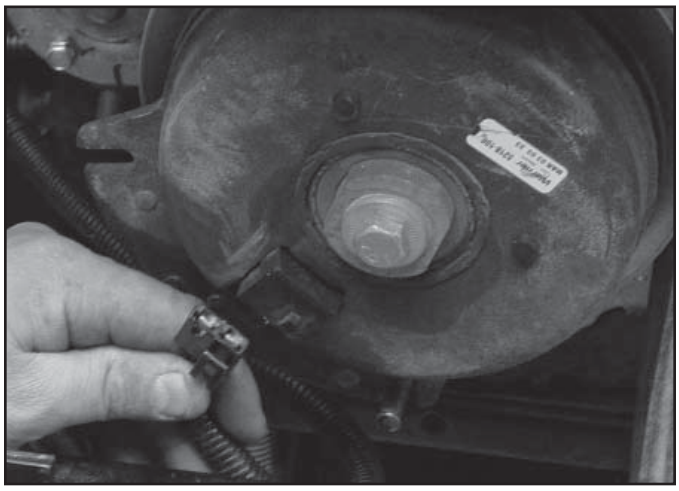

Fig 359 DSC-3135

4. Lift the floor pan and remove the right side mower belt cover (Fig. 360).

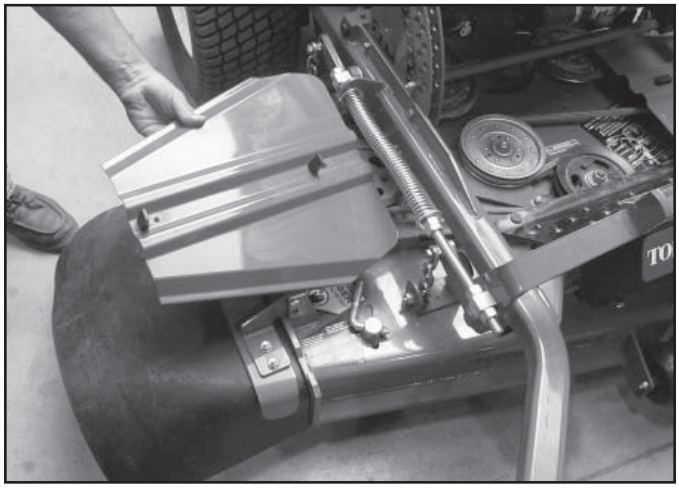

Fig 360 DSC-3136

5. Loosen the two nuts located on the idler plate to relieve tension on the belt (Fig. 361).

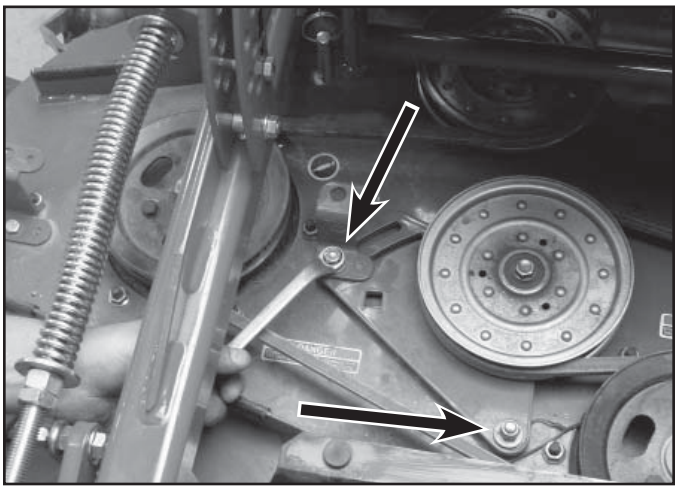

Fig 361 DSC-3137

6. Slip the mower drive belt off the right mower spindle pulley (Fig. 362).

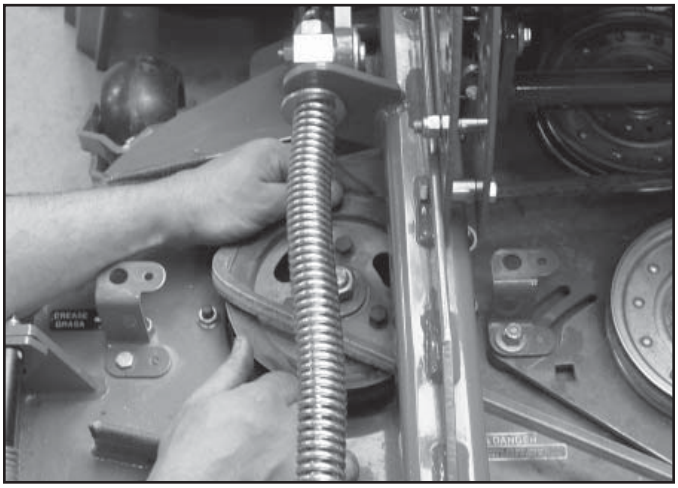

Fig 362 DSC-3138

7

7. Remove the belt from the electric PTO clutch (Fig. 363).

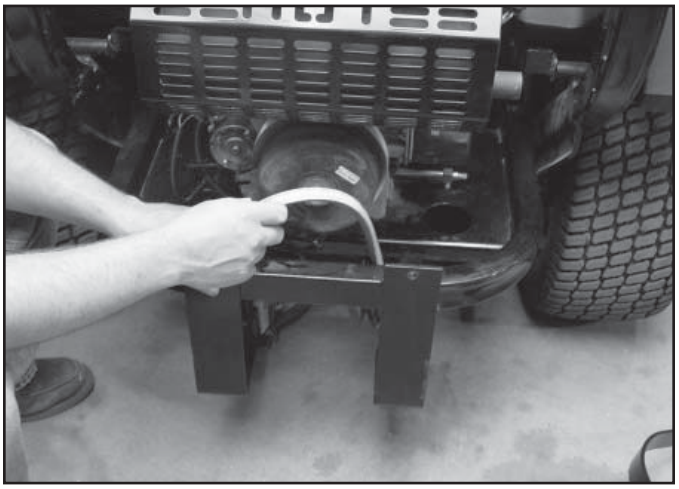

Fig 363 DSC-3139

8. Remove the electric PTO clutch bolt (Fig. 364).

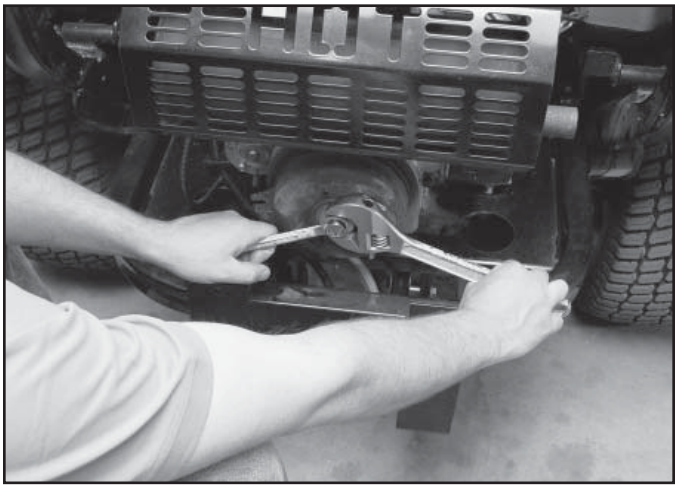

Fig 364 DSC-3140

9. Remove the electric PTO clutch from the engine crankshaft (Fig. 365).

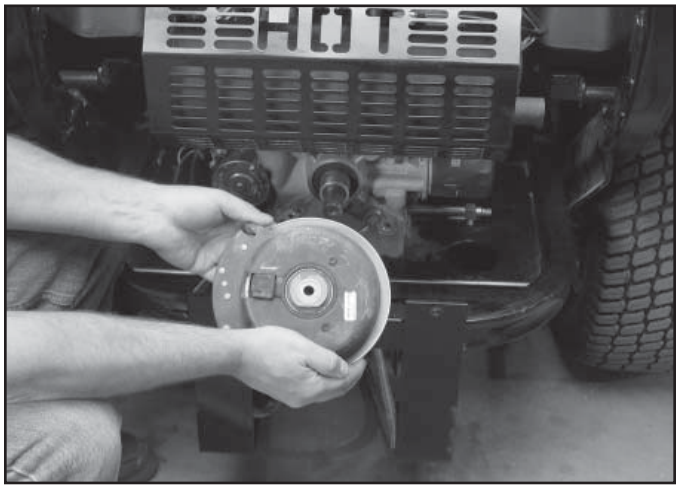

Fig 365 DSC-3141

Electric PTO Clutch Installation

1. Apply anti-seize compound to the engine crankshaft (Fig. 366).

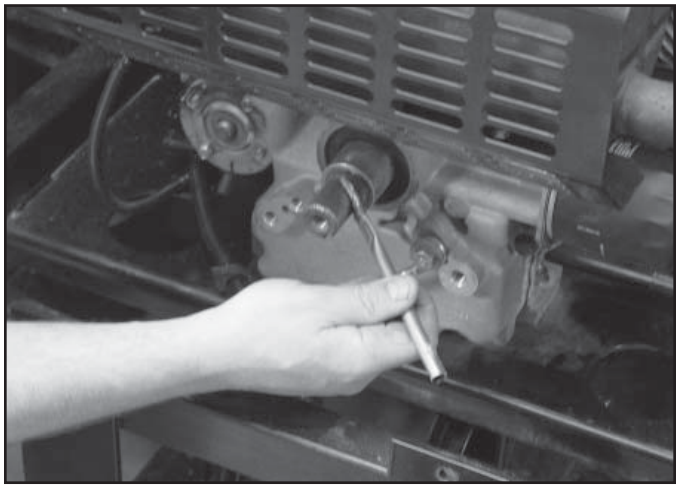

Fig 366 DSC-3142

2. Install the electric PTO clutch to the engine crankshaft (Fig. 367).

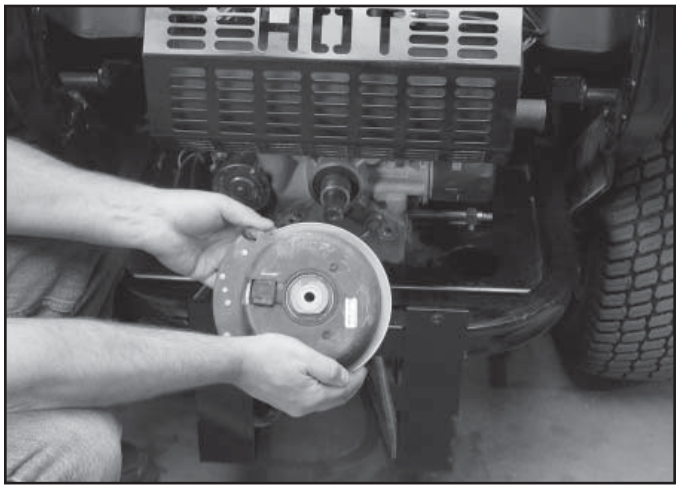

Fig 367 DSC-3141

3. Apply medium strength threadlocking material to the bolt. Install the bolt and two spring washers to the crankshaft. Torque the bolt to 65 ft. lbs (88.13 Nm) (Fig. 368).

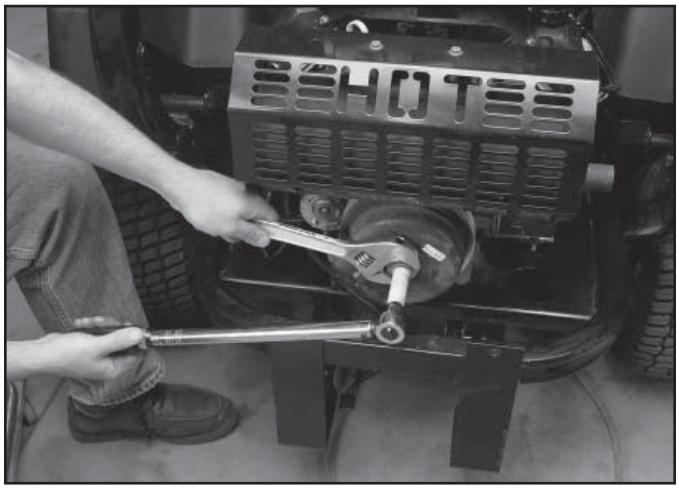

Fig 368 DSC-3143

4. Install the mower drive belt around the electric PTO clutch pulley (Fig. 369).

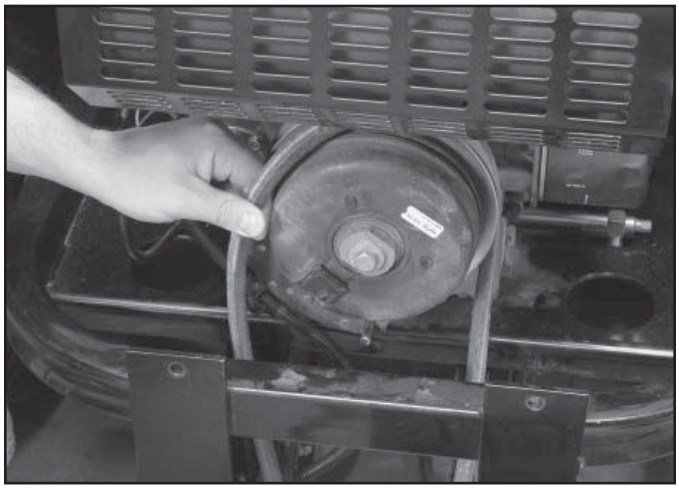

Fig 369 DSC-3144

5. Check and make sure the mower drive belt is in the groves of the two idler pulleys located under the electric PTO clutch (Fig. 370).

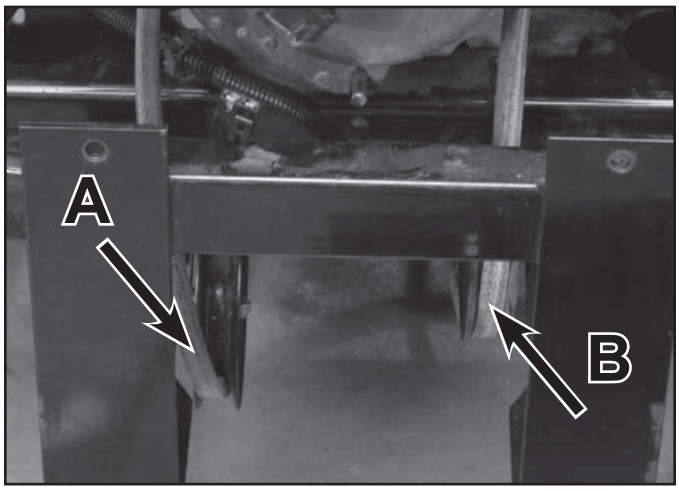

Fig 370 DSC-3145

A. Idler pulley B. Stationary idler

7

6. Route the belt around all of the mower deck pulleys and install the belt around the right side mower spindle pulley (Fig. 371).

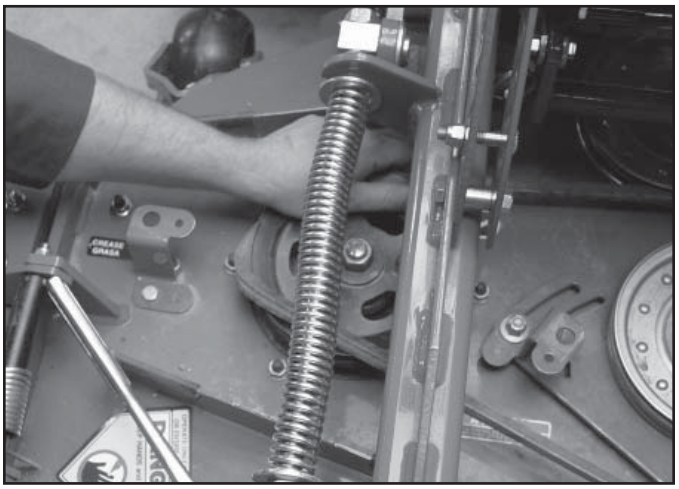

Fig 371 DSC-3146

Important: Check the amount of twist in the belt between the pulleys. Make sure it is only what is specified in Figure 372.

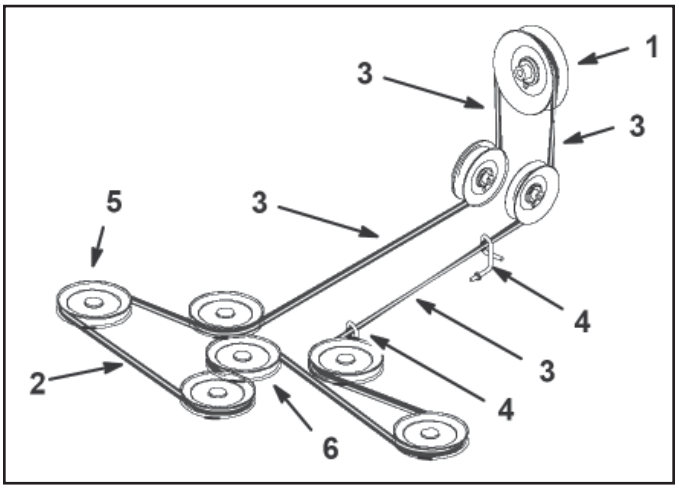

Fig 372 fig. 70 m-6825

1. Clutch
2. Mower belt
3. 1/4 turn belt twist
4. Belt guide
5. Mower spindle pulley
6. Mower idler pulley

7. Install a 1/2” ratchet and extension, into the square hole in the idler plate (Fig. 373).

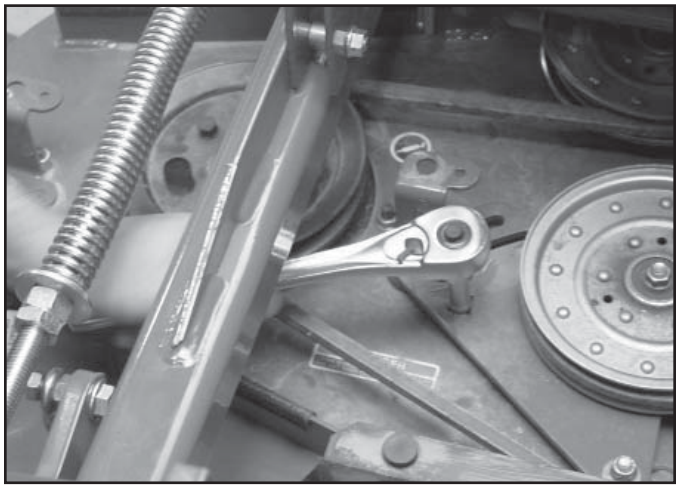

Fig 373 DSC-3147

8. Rotate the mower idler plate toward the front of the mower deck until light contact is made between the rear idler arm and the rubber stop (Fig. 374).

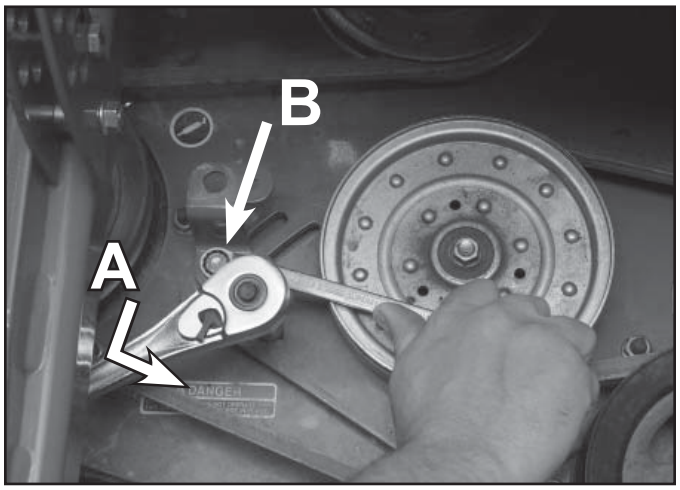

Fig 374 DSC-3148

8. Direction to rotate idler plate
B. Idler plate nut

7

9. Tighten the pivot bolt on the idler plate once the adjustment is achieved (Fig. 375).

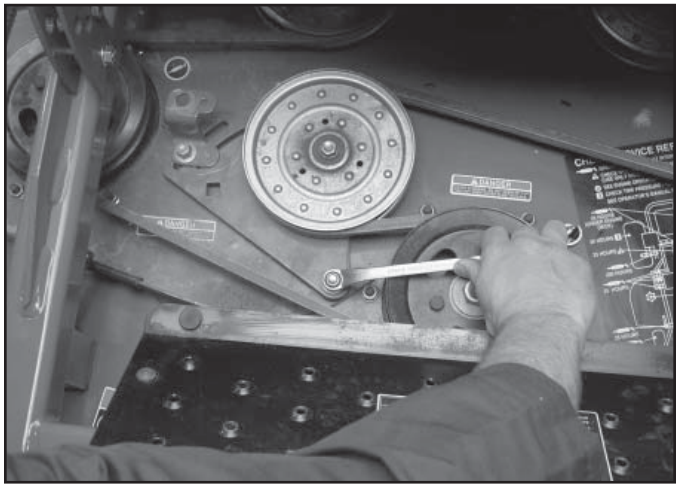

Fig 375 DSC-3149

10. Connect the PTO clutch connector to the clutch (Fig. 376).

Fig 376 DSC-3135

11. Install the right belt cover on the mower deck.

12. Install the right and left top strap guards, with the clutch guard to the unit (Fig. 377).

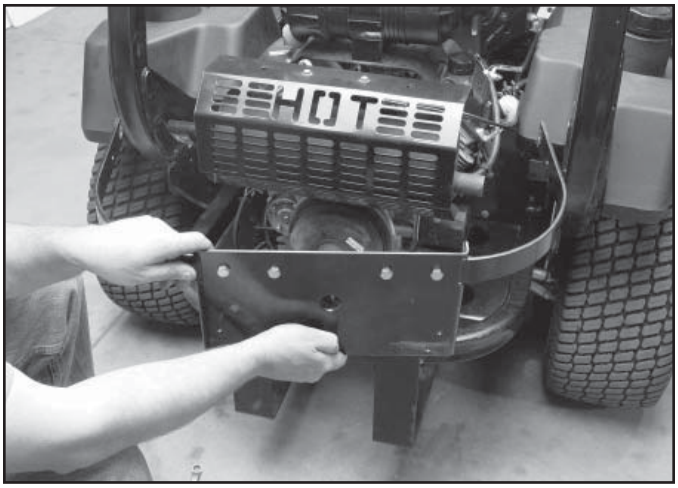

Fig 377 DSC-3134

13. Install and tighten the two bolts and nuts on the top strap guards and the two bolts in the clutch guard (Fig. 378).

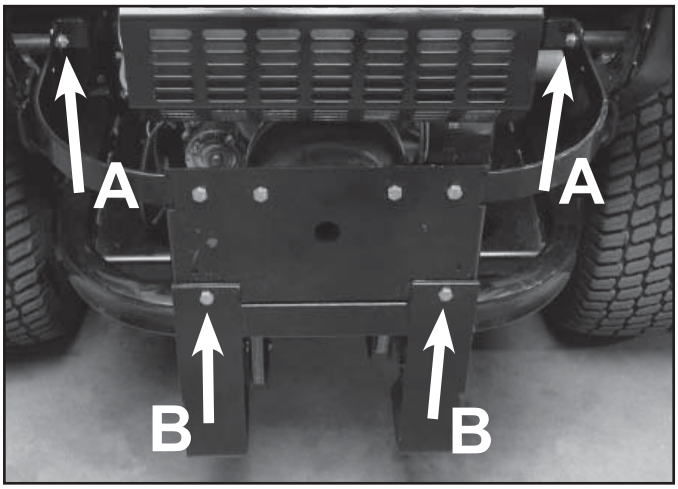

Fig 378 DSC-3131

A. Top strap bolts B. Clutch guard bolts

Mower Deck Removal (52, 60, 72”)

1. Lift the floor pan and remove the right hand belt cover (Fig. 379).

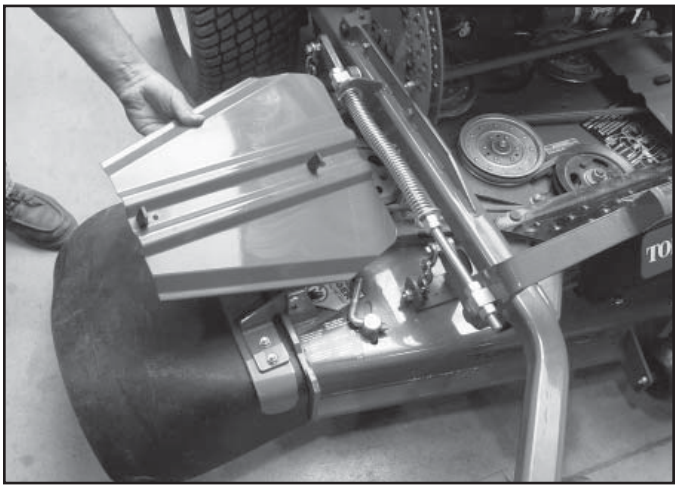

Fig 379 DSC-3136

2. Loosen the two nuts located on the idler plate to relieve tension on the mower drive belt (Fig. 380).

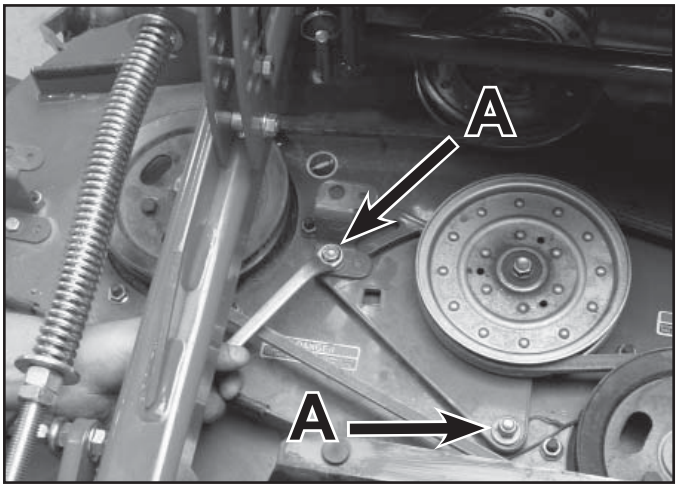

Fig 380 DSC-3137

A. Idler plate bolt

3. Slip the mower drive belt off the right mower spindle pulley (Fig. 381).

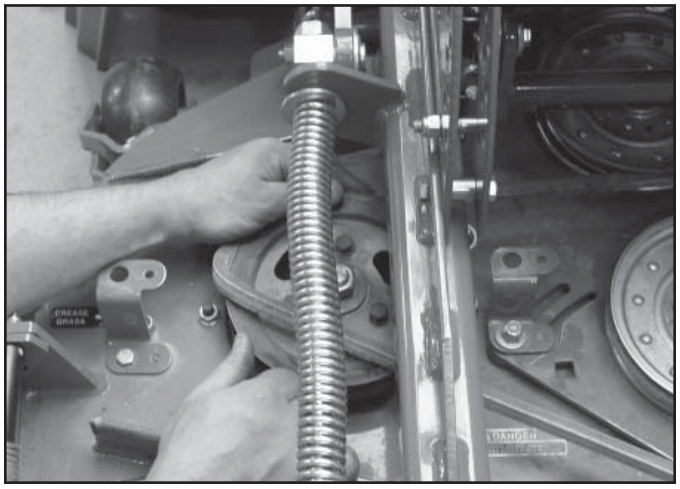

Fig 381 DSC-3138

4. Remove the belt around the electric PTO clutch pulley and the two rear idler pulleys (Fig. 382).

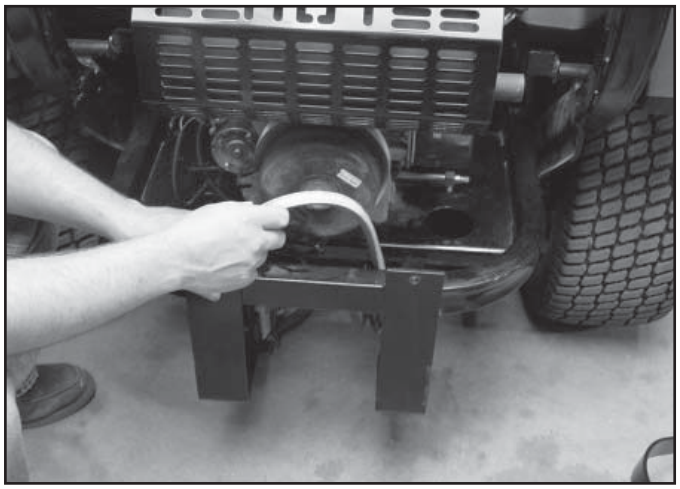

Fig 382 DSC-3139

Note: Clutch guard removed for clarity.

5. Raise the mower deck to the transport position. Install a 4 x 4 wood block under the right side of the mower deck. Lower the deck to relieve tension on the lift chains on the right side (Fig. 383).

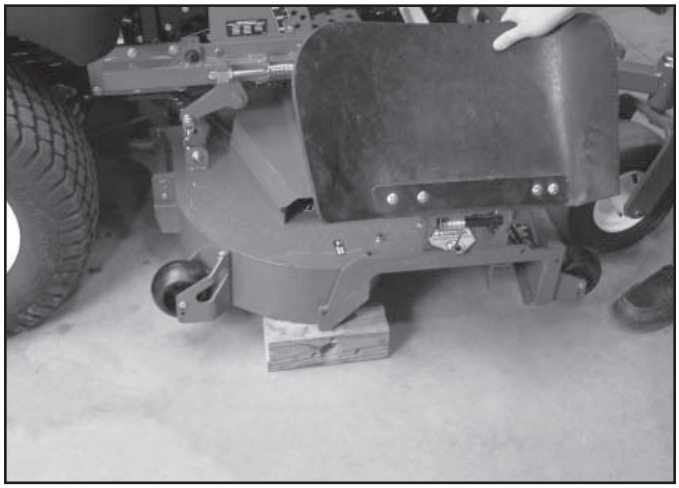

Fig 383 DSC-2623

6. Remove the front and rear lift chains from the mower deck (Fig. 384).

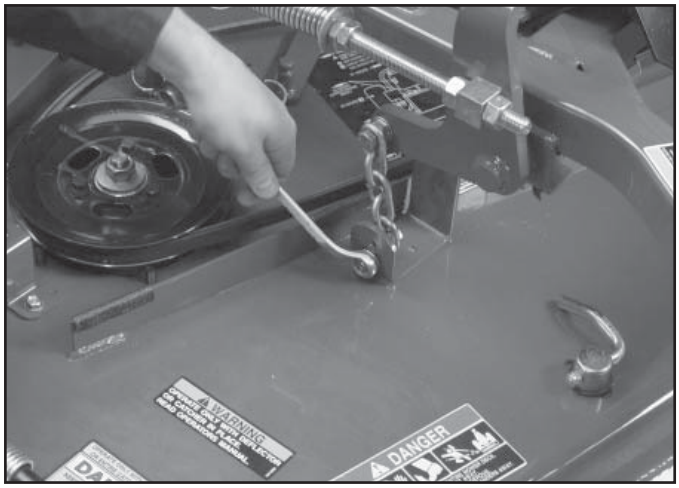

Fig 384 DSC-2631

7. Remove the bolt and nut holding the right rear strut pin into the strut assembly (Fig. 385).

Fig 385 DSC-2632

8. Remove the strut pin from the strut assembly and remove the assembly from the mower deck (Fig. 386).

Fig 386 DSC-2633

Tie strap the strut assembly up so it will be out of the way of the mower deck when sliding it out under the frame. Remove the 4 x 4 block of wood from the right side of the deck and allow the deck to rest on the floor.

9. Raise the deck to transport position. Install a 4 x 4 wood block under the left side of the mower deck. Lower the mower deck until it rests on the block of wood to relieve tension on the lift chains (Fig. 387).

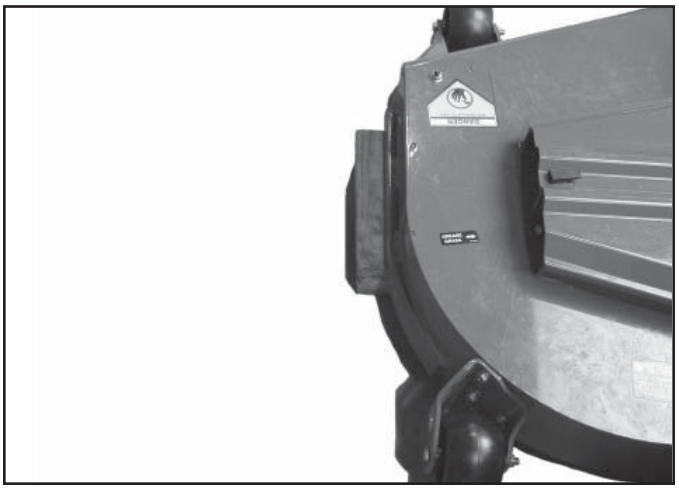

Fig 387 DSC-2635

10. Push the lift handle to the lowest HOC position to overcome the tension of the lift assist springs. Use the hitch pin above the lift handle to lock the handle in the down position (Fig. 388).

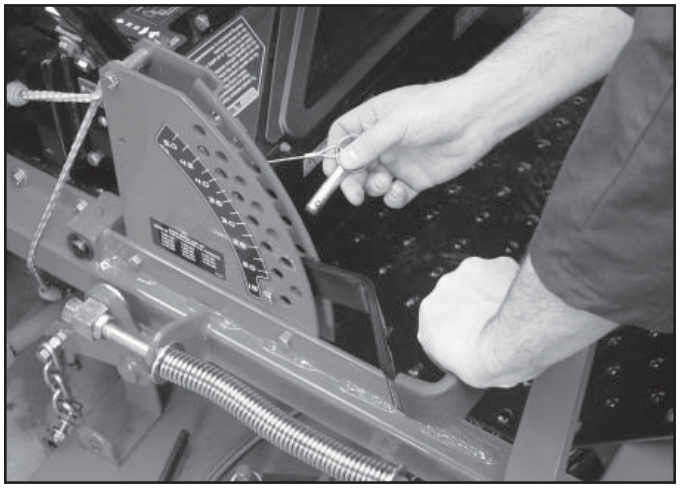

Fig 388 DSC-2636

11. Follow steps 5 through 8 on the left side of the mower deck.

12. Remove the 4 x 4 wood block from under the left side of the mower deck and lower the deck to the floor.

13. Turn the right front wheel so the caster fork is angled forward. This will allow more clearance to slide the mower deck from under the frame (Fig. 389).

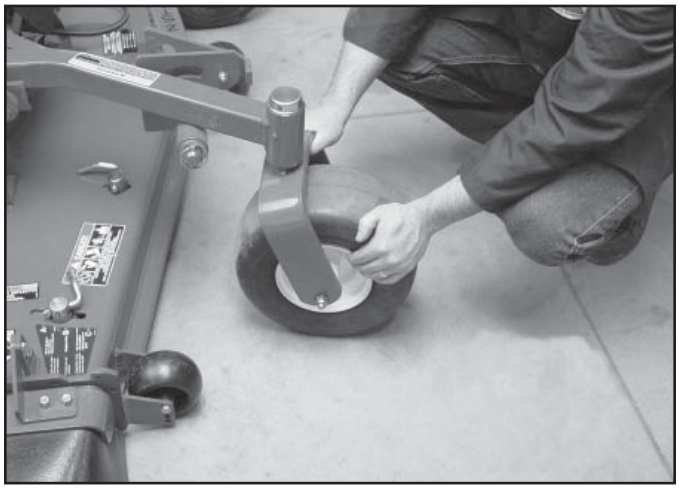

Fig 389 DSC-2637

14. Slide the mower out the right side of the unit (Fig. 390).

Fig 390 DSC-2638

Mower Deck Installation (52, 60, 72”)

1. Slide the mower deck under the unit.

2. Install a 4 x 4 block of wood under the left side of the mower deck (Fig. 391).

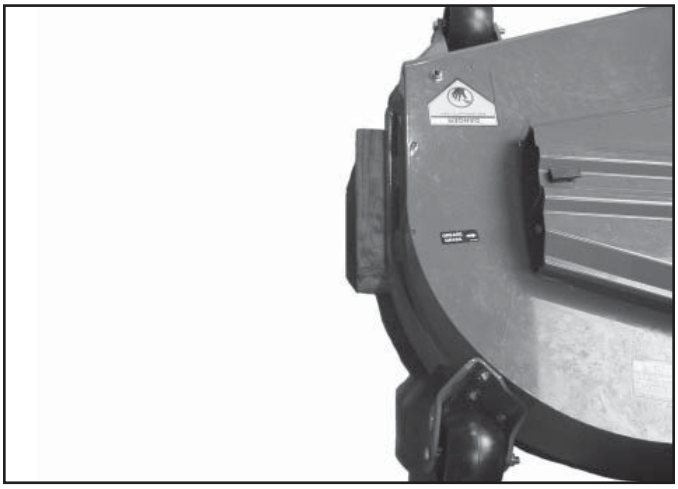

Fig 391 DSC-2635

3. Install the strut pin through the strut assembly. Install the bolt and nut retaining the strut pin (Fig. 392).

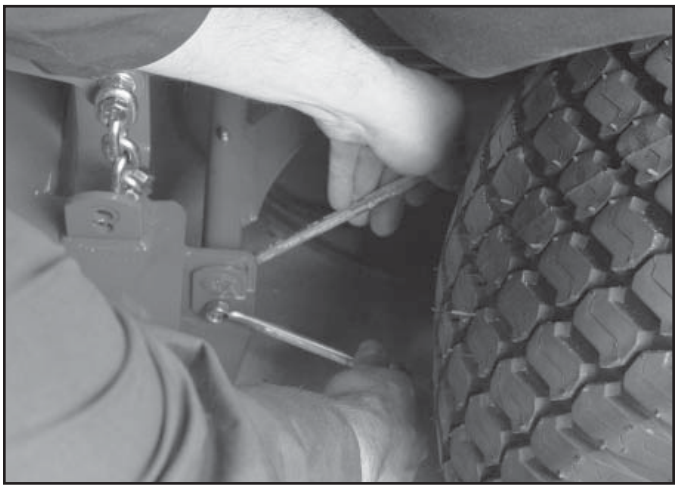

Fig 392 DSC-2639

4. Install the rear and front chains to the mower deck (Fig. 393).

Fig 393 DSC-2640

5. Remove the hitch pin on the lift handle and raise the mower in the transport position.

6. Install a 4 x 4 wood block under the right side of the mower deck.

7. Lower the mower deck down on the wood block.

8. Install the strut pin in the strut assembly. Install and tighten the bolt and nut.

9. Install the rear and front lift chains to the mower.

10. Raise the mower deck and remove the wood block.

11. Install the belt around the electric PTO clutch pulley (Fig. 394).

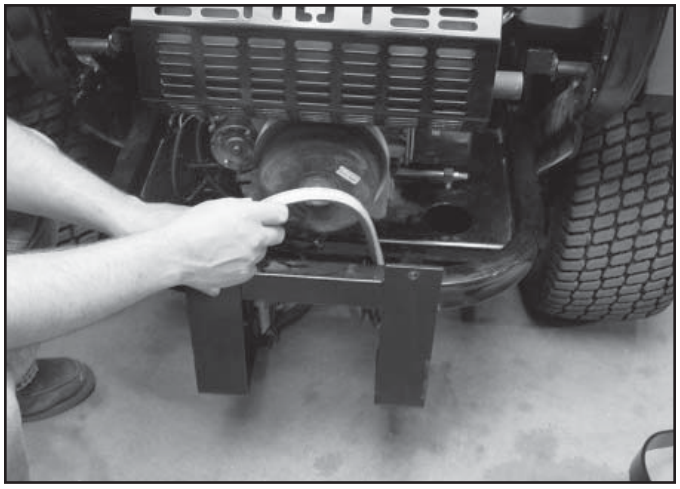

Fig 394 DSC-3139

Note: Clutch guard removed for clarity.

12. Check and make sure the mower drive belt is in the grooves of the two idler pulleys located under the electric PTO clutch (Fig. 395).

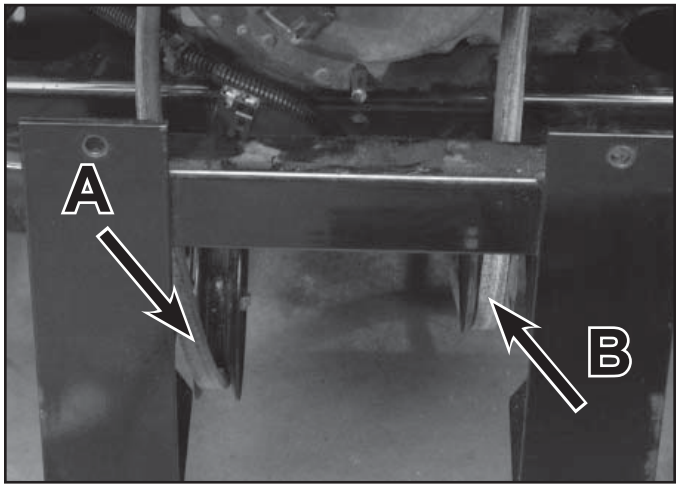

Fig 395 DSC-3145

A. Idler pulley B. Stationary idler

7

13. Route the belt around all of the mower deck pulleys and install the belt around the right side mower spindle pulley (Fig. 396).

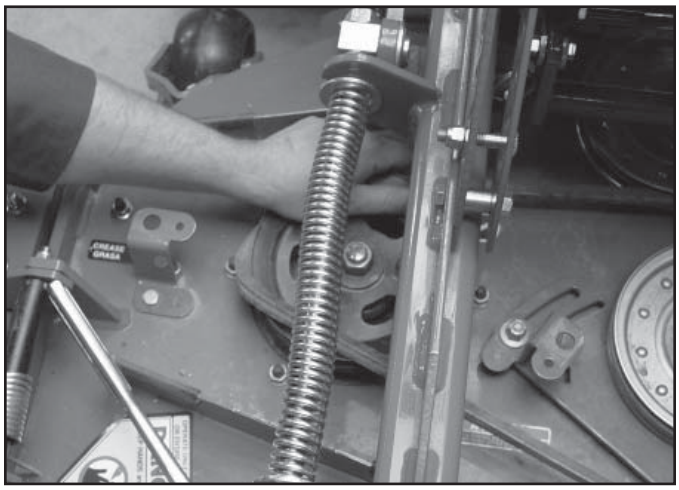

Fig 396 DSC-3146

Important: Check the amount of twist in the belt between the pulleys. Make sure it is only what is specified in Fig. 397 below.

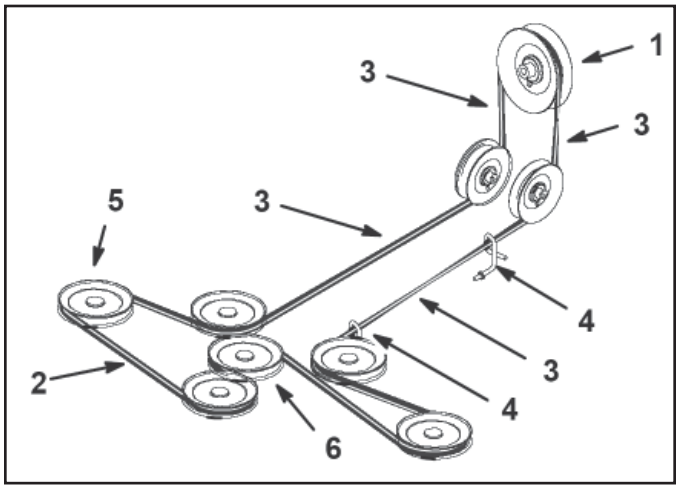

Fig 397 fig. 70 m-6825

1. Clutch
2. Mower belt
3. 1/4 turn belt twist
4. Belt guide
5. Mower spindle pulley
6. Mower idler pulley

14. Install a 1/2” socket ratchet and extension, in the square hole in the idler plate (Fig. 398).

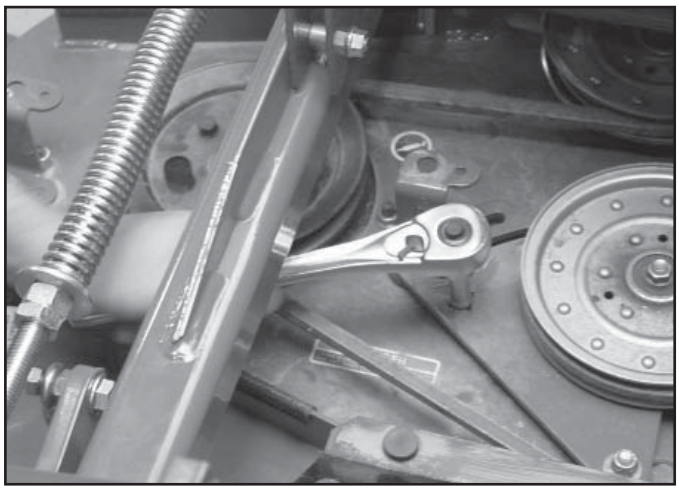

Fig 398 DSC-3147

15. Rotate the mower idler plate toward the front of the mower deck until light contact is made between the idler arm and the rubber stop (Fig. 399).

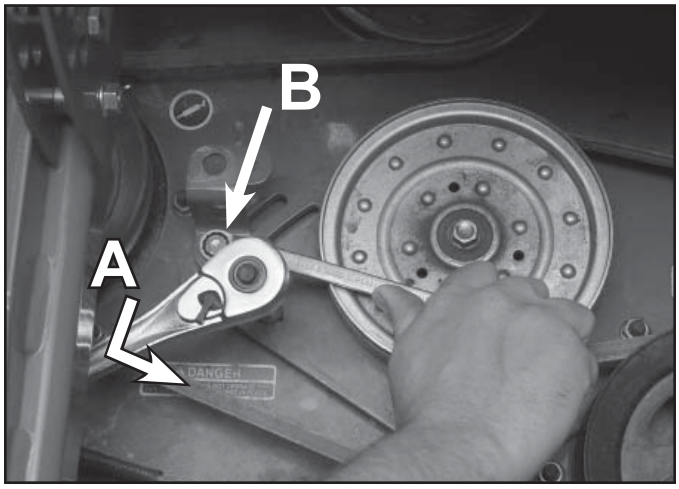

Fig 399 DSC-3148

8. Direction to rotate idler plate
B. Idler plate nut

7

16. Tighten the pivot bolt on the idler plate once the adjustment is achieved (Fig. 400).

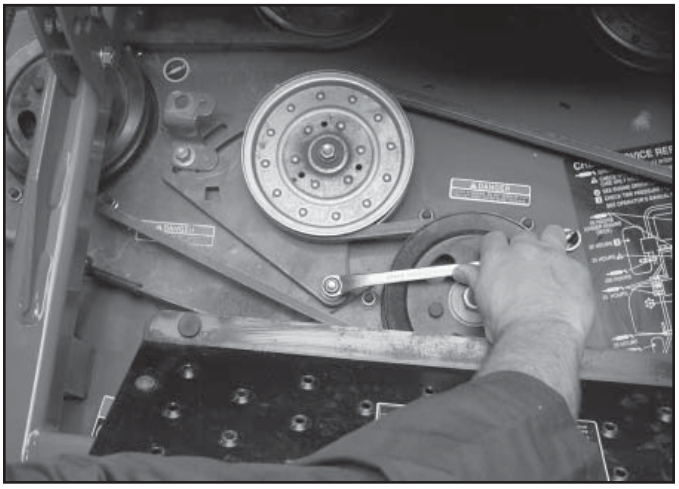

Fig 400 DSC-3149

17. Install the right belt cover on the mower deck.

Mower Spindle Removal

This applies to removing any of the three mower spindles. This procedure shows removing the right side spindle.

1. Either use a hoist or the Z Stand to raise the front of the mower deck.
2. Chock or block the drive wheels.
3. Disconnect the battery negative cable.
4. Lower the mower deck to the lowest position.
5. Lift the floor pan and remove the right side mower belt cover (Fig. 401).

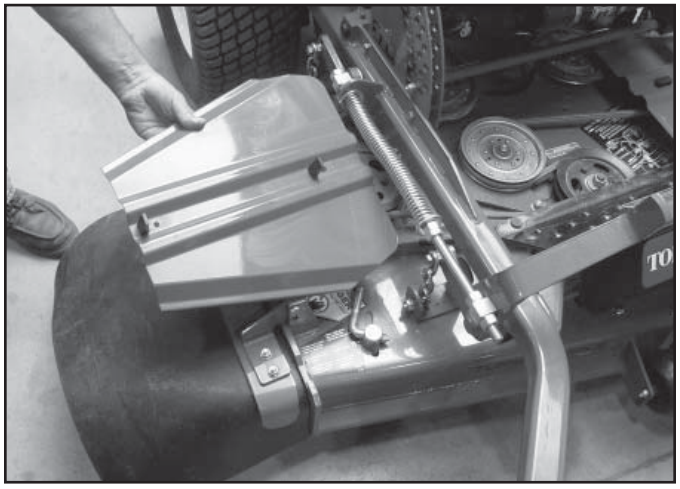

Fig 401 DSC-3136

6. Loosen the two nuts located on the idler plate to relieve tension on the belt (Fig. 402).

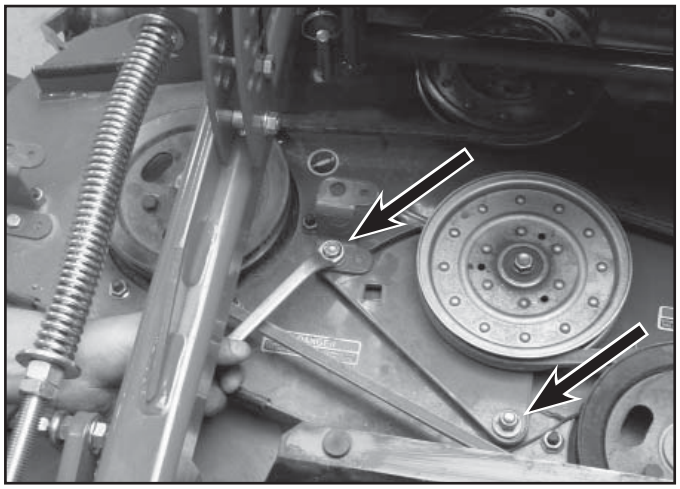

Fig 402 DSC-3137

7. Slip the mower drive belt off the left mower spindle pulley (Fig. 403).

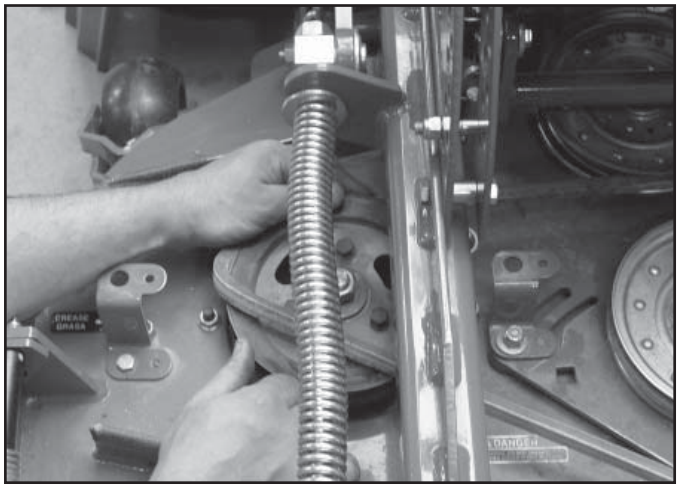

Fig 403 DSC-3138

8. Remove three bolts retaining the pulley to the pulley hub (Fig. 404).

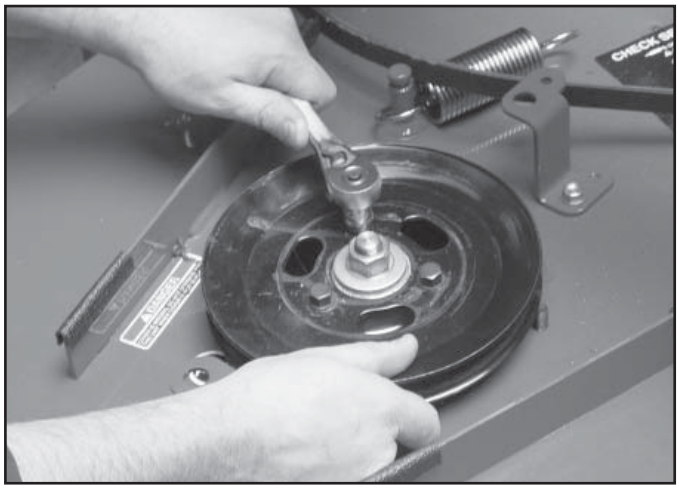

Fig 404 DSC-2662

9. Raise the mower deck to the transport position.

10. Remove the mower blade from the spindle assembly.

11. Remove the 6 bolts and nuts from the spindle assembly. Remove the spindle assembly (Fig. 405).

Fig 405 DSC-2666

Mower Spindle Installation

Reverse the order of mower spindle removal.